Cabbage Worms in High Tunnel Greens

Judson Reid, Cornell Vegetable Program

For the past several falls we have observed that cabbage worm populations will spike in high tunnel greens. This may come as a surprise, but as the weather cools down outside of the tunnel, any remaining moths or worms such as cabbage loopers (CL), diamondback moth (DM) and imported cabbage worm (ICW) may migrate into tunnels where susceptible crops such as Asian greens and arugula are grown.

Our experience is that we can control these worms with Bt sprays, such as Dipel. In the Fall of 2011 one of our cooperating farms in Cattaraugus County was losing yield of collard greens to ICW. In the chart below the first application in mid-October dramatically reduced their population, with a second application a month later to keep them in check.

Getting these sprays on early is important as the worms can ruin a crop with their feeding and droppings contaminating the product (see photo above). As this is a biologically based insecticide, it will work slower as temperatures drop. Our spray window is narrower as the fall progresses with shorter days and lower temperature. Thus the key to pest management in the cool season is to start early.

Please note that some field products, such as Radiant, are not allowed for use in tunnels. This fall we continue our NE SARE sponsored research of effective pest control in cool season greenhouse vegetables. Please call Judson Reid at 585-313-8912 if you would like a visit to your high tunnel this fall or winter.
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This publication contains pesticide recommendations. Changes in pesticide regulations occur constantly and human errors are possible. Some materials may no longer be available and some uses may no longer be legal. All pesticides distributed, sold or applied in NYS must be registered with the NYS Dept of Environmental Conservation (DEC). Questions concerning the legality and/or registration status for pesticide usage in NYS should be directed to the appropriate Cornell Cooperative Extension (CCE) specialist or your regional DEC office. CCE and its employees assume no liability for the effectiveness or results of any chemicals for pesticide usage. No endorsement of products or companies is made or implied.

**READ THE LABEL BEFORE APPLYING ANY PESTICIDE.**

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"Building Strong and Vibrant New York Communities"

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Cornell Cooperative Extension does not endorse or recommend any specific product or service.

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**Veg Edge** is a shared publication of two Cornell Cooperative Extension teams, the Cornell Vegetable Program, serving 12 counties in Western & Central NY, and the Capital District Vegetable & Small Fruit Program, serving 11 counties in the Capital Region of NY.
Join commercial berry growers from across the state January 22 and 23 for berry education sessions at the Empire State Producers Expo at the OnCenter in Syracuse. Featured January 22 is a special joint fruit and vegetable session on the new invasive pest Spotted Wing Drosophila. This pest caused significant damage and crop loss to berries across the state in 2012. SWD caused damage to late season summer raspberries and blueberries, fall raspberries and blackberries, and day neutral strawberries. In addition, reports of SWD infested fruit were verified in peaches, plums, nectarines and grapes. Verification of SWD in grape tomato has yet to be confirmed. Hannah Burrack, small fruit entomologist from NC State will discuss the life cycle of Spotted Wing Drosophila to help growers gain a better understanding of the pest. Andrew Landers and Arthur Agnello, Cornell, will instruct growers on modernizing sprayers for optimal control of SWD.

In addition, Kimberly Lewers, USDA Henry A. Wallace Beltsville Agricultural Research Center, will speak on low tunnel strawberry production. This system, used commercially in the Middle East and Northern Europe for winter production, as well as in Brazil as a rain shield during summer production, is being modified by Lewers to extend day-neutral strawberry production along the northern and mid-Atlantic seaboard of the US. Tim Stanton, Stanton’s Fuera Farm, and Laura McDermott, Capital District Fruit and Vegetable Program, will describe their work with zone tillage in June-bearing strawberries. Marvin Pritts, Cornell, will present results from a NE SARE project to improve berry soil and nutrient management using the Cornell Soil Health test. Finally, highlights from the 2012 berry pricing survey will be presented by Cathy Heidenreich, Cornell Berry Extension Support Specialist.

On January 23 a special blueberry intensive workshop on maximizing production will be presented by Gary Pavlis, Rutgers University, Atlantic County, NJ, where he is located, has almost 80% of the NJ crop. Pavlis has changed the timing of fertilizer application, computerized fertilizer recommendations, and introduced fertilizing through trickle systems for blueberry production. The result has been higher yields, better fruit quality and healthier plants.

For more info about the Expo, or to pre-register, go to www.nysvga.org.

Food Safety Session at the Expo

The Food Safety session at the 2013 Empire State Producers Expo, January 23 at 3:30 pm, promises to be an important one. “Buyer Requirements, Harmonized GAPs, and Training Options for 2013” gets into the details of the Harmonized GAPs, which is what many buyers will soon be requiring as the 3rd party audit of choice. Speaker Wendy Ingersoll, NYS Dept. of Agriculture & Markets, has training and field-level exposure to the new Harmonized GAPs, and has done this audit on grower farms in the state. Gretchen Wall, of the Produce Safety Alliance, has solid extension experience and specific training in the Harmonized GAP standards. Scott McQuiston, Dawson Orchards, Enon Valley, PA, has gone through both the basic USDA-GAPs and the new Harmonized Initiative. He will give the grower perspective on this transition. With the last few severe food-borne outbreaks involving postharvest water use, Giselle Guron’s talk on “Practical solutions for small scale produce wash water management” will be extremely timely and helpful. Robert Hadad and Craig Kahlke, Cornell Cooperative Extension, will round out the program discussing grower training opportunities across the state in 2013. Expo info at: www.nysvga.org.
American Maze Founder to Share Story at the Expo

2013 Expo Planning Committee

What does a Broadway Producer have to do with agriculture? Don Frantz, noted producer of Town Square Production, had an idea. What if farmers shaped their corn fields into fantastic shapes and had people run through them as a maze challenge? Thus Frantz founded the American Maze Company, marketing maze designs to farmers across the country. Frantz is going to share his story "Lessons of the maze: Using the creative process and perseverance to succeed" to kick off the Direct Marketing Session January 24 at the Empire State Producers Expo at the Oncenter in Syracuse.

In addition, Olga Padilla-Zakour, Cornell Food Science and the Northeast Center for Food Entrepreneurship, will present "Into the jar: Creating your own processed foods." Zakour will cover processing from creating the product to navigating NYS regulations necessary to bring it to the market. Finally, "Introducing your market to a larger customer base," will be presented by Benjamin Vitale, Director of the Central New York Regional Market Authority, Syracuse. Vitale has noted how some farm market vendors create a strong following and move on to grocery store status, while others seem to do little business. He’ll share his insights to help you make your market a success.

For more information about the Expo or to register, check out www.nysvga.org.

Perishable Pundit to Give Keynote at Expo on January 23

2013 Expo Planning Committee

The Perishable Pundit, Jim Prevor, will give the Keynote Address at the Empire State Producers Expo on Wednesday, January 23 at 10 am at the OnCenter in Syracuse. This is the premier conference for vegetable, fruit, and flower growers and marketers in the Empire State. Jim Prevor is widely recognized as a leader in understanding and assessing the state of the perishable food industries. Prior to launching his own company, he served as a director of his family’s business, which was an importer, exporter and wholesaler of foodstuffs, including produce, deli meats and cheeses, fresh eggs and frozen poultry. At various times, the business also included supermarkets and convenience stores, a restaurant chain and farming operations. He has traveled the world inspecting growing, wholesaling and retailing operations and has visited virtually every terminal market in the United States and across the globe.

Jim is founder and editor-in-chief of both Produce Business and Deli Business magazines, he launched The Retail Institute, The International Prepared Foods Conference and Exposition and was a partner in the launch of the Institute for Produce Entrepreneurs, designed to help family businesses, and Perishable Solutions, a consultancy specializing in bringing strategic thinking to the fast-moving business of perishables. Most recently, Prevor has led an effort to use the Internet and modern information technologies to advance the interests of the fresh foods industry. He launched Jim Prevor’s Perishable Pundit, which quickly became the industry’s most important forum for the discussion and analysis of issues relevant to the trade. Prevor combines the real world experience of one who has worked in the trade with the analytical perspective of an analyst.

For more information about the Expo or to register, check out www.nysvga.org.
The Agriculture Labor Program invites growers to attend a Post-Harvest Meeting. These meetings are intended for all growers of agricultural products who have employees of any category (domestic or foreign, seasonal or year round) or think they might hire workers next year. Supervisory staff as well as field staff will be present at each meeting. We will be discussing our observations on the 2012 season and share our outlook and plans for 2013. We will also provide some information about the new electronic application for the H-2A guest worker program. Most importantly, we will be seeking input from you about your experience in 2012 and what you anticipate for 2013. The Agriculture Labor Program exists to promote the success of New York’s large and diverse agriculture industry.

**Wednesday, December 12, 2012**
1:00 - 3:00 pm  
CCE Wayne County, 1581 Route 88 North, Newark NY 14513  
RSVP: Jennifer Karr at: Jennifer.Karr@labor.ny.gov or 585-258-8815

**Friday, December 14, 2012**
10:00 am - 12:00 noon  
Farm Credit East, 4363 Federal Drive, Batavia NY 14020  
RSVP: Caylin Gwise at: Caylin.Gwise@labor.ny.gov or 585-344-2042 ext 225

**2013 Farm Food Safety Trainings**

*Robert Hadad, Cornell Vegetable Program*

Over the past few years and especially the last 18 months, media coverage of several high profile food borne illness outbreaks in produce have made national news. Both the produce industry and the federal government have stepped up demands for fruit and vegetable farms to meet food safety practice standards. In NY, the program of choice has been GAPs, with Cornell National GAPs program and Cooperative Extension leading the way with trainings. The major players in the produce industry have been trying to unify many of the various certification food safety programs into one standard. This is called Harmonized GAPs. In NY, Wegman’s and other retail produce buyers have started asking their growers to move to this new program.

Cornell Cooperative Extension, the Cornell Vegetable Team, the Cornell Lake Ontario Fruit Team, and the Cornell National Good Agricultural Practices (GAPs) Program along with assistance from NY Dept. Ag & Markets, will be presenting trainings this winter on farm food safety - GAPs (including Harmonized GAPs). *These workshops are funded through a grant by the Genesee Valley Regional Marketing Authority.*

Growers can choose a two day session to attend. Each session will cover the mechanics of food safety, risk assessment of practices, reducing microbial risk, and certification/inspection components. Day 2 will be spent helping farmers write their food safety draft plan incorporating what was learned from Day 1. Pre-registration is required and there will be a fee. Contact Robert Hadad for more info or to pre-register for a session at: rgh26@cornell.edu or 585-739-4065.

**GAPs Farm Food Safety Trainings:**

*January 15-16* - Ontario County (site to be determined): Open to all produce growers; an emphasis on berry production.

*January 30-31* - Livingston County (site TBD): Open to all produce growers.

*February 7-8* - Genesee or Monroe County (site TBD): Open to all produce growers.

*March 6-7* - Yates County (site TBD): Open to all produce growers.

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**Filling Your Crop Needs**

- **Elba Muck**: Doug Rathke  
  716.474.0900 cell; 585.757.6642

- **Batavia**: Mike Hammond  
  585.343.4622

- **Caledonia**: Dale Bartholomew  
  585.538.6836

- **Knowlesville**: Kirk Zinkevich  
  585.798.3350

- **Gainesville**: Larry Dumbleton  
  585.322.7273

- **Agronomist**: Don Jones  
  585.734.2152

Chemicals, fertilizer, seed, custom application, airflow spreading & seeding
Upcoming Meetings

Basic Farm Business Management Planning
The fee is $25/person. Call ahead to register: 518-765-3500 or 518-380-1498 or sab22@cornell.edu

December 4th - 6:00 – 8:30 p.m. at CCE-Columbia Cty. 479 Route 66, Hudson, NY
January 12th - 2013 - 9:30 a.m. to noon at CCE-Washington Cty. 415 Lower Main St, Hudson Falls, NY.
February 7th - 2013 - 6:00-8:30 p.m. at CCE-Washington Cty. 415 Lower Main St, Hudson Falls, NY.
CCE Farm Business Management specialist Sandy Buxton is working on a follow-up class on farm recordkeeping.

Marketing for Profit: Market Assessment and Customer Assessment Webinars
These webinars were designed to provide critical marketing insights for farmers and farm marketers. The webinars are free, 90 minutes long, and easy to access. The winter season, 2012-13, will focus on Market Assessment and Customer Assessment. To register or for more info go to: http://www.nyfarmersmarket.com/work-shop-programs/webinars/program.html Scroll down and click on Full Three Year Curriculum or Register for Webinars. Or contact Diane Eggert at: deeggert@nyfarmersmarket.com
Sponsored by the Farmers Market Federation of NY, the NY Farm Viability Institute, and USDA Northeast SARE

Learning to Look Around - December 4, 10:00 - 11:30 am; or December 5, 7:00 - 8:30 pm
How Smart ARE You? - December 10, 10:00 - 11:30 am; or December 11, 6:00 - 7:30 pm
Building the Marketing Plan - January 8, 11:00 am - 12:30 pm; or January 9, 6:00 - 7:30 pm
Coming to Understand the Customer - January 15, 11:00 am–12:30 pm; or January 16, 6:00 - 7:30 pm
Promoting the Product - January 29, 11:00 am–12:30 pm; or January 30, 6:00 - 7:30 pm
Market Assessment & Analysis - February 12, 11:00 am–12:30 pm; or February 13, 6:00 - 7:30 pm

Upstate NY Potato Advisory Meeting and Cornell Potato Breeding Line Show & Tell
Topics to be covered include: Growing season review; day-neutral strawberries vs. June bearers: which fits your farm system and market best; how to become a certified pesticide applicator in NY; potato and pumpkin variety trial results; rye as an herbicide alternative in tomatoes and onions; high tunnels and auctions: a research update; growing high tunnel tomatoes on a budget; results of NY produce auction surveys; and Q&A session with Penn Yan Auction group. 1.5 DEC credits are available in categories 1a, 10 and 23.
Lunch is available for a donation. Contact Marcie to register at 518-272-4210.

Mohawk Valley Produce Auction Growers’ Meeting
Tuesday, December 4
9:00 am - 3:00 pm
Canajoharie Fire House, 65 Erie Blvd, Canajoharie 13317

Greenhouse Vegetable Shortcourse, and Tour of Finger Lakes Fresh Lettuce
December 5 & 6
Ken Post Lab Greenhouse, Cornell Post Circle (Judd Falls and Tower Rds) Ithaca 14853

Cost: $130. Questions? Contact Cathy at 845-344-1234
Send your contact info and fee to:
CCE - Orange Co., 18 Seward Ave, Ste. 300, Middletown, NY 10940-1919
Attn: Greenhouse Vegetable Shortcourse
Checks payable to: CCE Orange County
Partial funding is provided by the USDA Risk Management Agency and NYS Dept. of Ag & Markets, as part of a risk management and crop insurance education cooperative agreement.

Promoting the Product - January 8, 11:00 am - 12:30 pm; or January 9, 6:00 - 7:30 pm
Coming to Understand the Customer - January 15, 11:00 am–12:30 pm; or January 16, 6:00 - 7:30 pm
Promoting the Product - January 29, 11:00 am–12:30 pm; or January 30, 6:00 - 7:30 pm
Market Assessment & Analysis - February 12, 11:00 am–12:30 pm; or February 13, 6:00 - 7:30 pm

Upstate NY Potato Advisory Meeting
and Cornell Potato Breeding Line Show & Tell
Wednesday, December 5
9:30 am - 3:00 pm
CCE Ontario County, 480 N Main St, Canandaigua 14424

Annual roundtable on concerns of the potato industry, reports on research, agency updates, and presentation of promising new potato breeding lines. All potato growers are invited to attend. DEC credits will be available.
$10 Pre-registration required by Fri, Nov. 30th – contact Carol MacNeil at crm6@cornell.edu or 585-313-8796. To suggest agenda items contact Don Halseth at deh3@cornell.edu or 607-255-5460.
Thanks to the Empire State Potato Growers for sponsoring!

Greenhouse Vegetable Shortcourse, and Tour of Finger Lakes Fresh Lettuce
December 5 & 6
Ken Post Lab Greenhouse, Cornell Post Circle (Judd Falls and Tower Rds) Ithaca 14853

Cost: http://www.cornell.edu/visiting/ithaca/directions_car.cfm
Send your contact info and fee to:
CCE - Orange Co., 18 Seward Ave, Ste. 300, Middletown, NY 10940-1919
Attn: Greenhouse Vegetable Shortcourse
Checks payable to: CCE Orange County
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<th>Event Title</th>
<th>Location</th>
<th>Details</th>
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<tr>
<td>Processing Sweet Corn, Snap &amp; Lima Beans Advisory Meetings</td>
<td>Jordan Hall Auditorium</td>
<td>A complimentary lunch will be served at noon. DEC and CCA credits will be available. No registration is required and the meetings are FREE. For more information, contact Julie Kikkert, 585-394-3977 x404 (office), 585-313-8160 (cell), or <a href="mailto:rkz@cornell.edu">rkz@cornell.edu</a>.</td>
</tr>
<tr>
<td>Processing Beet, Carrot &amp; Pea Advisory Meetings</td>
<td>Batavia First United Methodist Church</td>
<td>A complimentary lunch will be served at noon. DEC and CCA credits will be available. No registration is required and the meetings are FREE. For more information, contact Julie Kikkert, 585-394-3977 x404 (office), 585-313-8160 (cell), or <a href="mailto:rkz@cornell.edu">rkz@cornell.edu</a>.</td>
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<tr>
<td>Labor Issues for Ag Employers</td>
<td>Century House, Latham</td>
<td>Topics include: workplace compliance, e-verify, pending legislation, etc. Registration is $65/person ($55 if received by 11/28/2012). To register call Gale at 518-765-3500 or Sandy 518-380-1498 or <a href="mailto:sab22@cornell.edu">sab22@cornell.edu</a> at CCE. See registration form and flyer at: <a href="http://bit.ly/2012Labor">http://bit.ly/2012Labor</a></td>
</tr>
<tr>
<td>Cornell Organic Production &amp; Marketing Annual Meeting Webinar - Fruit &amp; Vegetables</td>
<td>- Central NY/Ithaca - Cornell, Mann Library Meeting Rm 102 (lunch served)</td>
<td>Researcher and grower research updates will be presented and there will be ample time for discussion. Whether you plan to participate online from your computer or attend one of the regional sites, you must pre-register by going to <a href="http://tinyurl.com/cuorganicpwt">http://tinyurl.com/cuorganicpwt</a>. For general information, visit <a href="http://www.organic.cornell.edu">www.organic.cornell.edu</a>.</td>
</tr>
<tr>
<td>NYS Dry Bean Industry Advisory &amp; Educational Meeting</td>
<td>LeRoy Country Club, 7759 E Main Rd/ Rt. 5, LeRoy</td>
<td>1.75 DEC credits, and CCA credits will be available. Roundtable on production, pest, marketing concerns of the industry, and reports on 2012 dry bean research. All growers are invited. Cost: $10. Pre-registration is required by Monday, December 10 - Contact Carol MacNeil at <a href="mailto:crn6@cornell.edu">crn6@cornell.edu</a> or 585-313-8796. Contact Chairman John McCreedy with suggestions for the agenda at <a href="mailto:john@nybean.com">john@nybean.com</a> or 585-538-6100. For the December 14 meeting agenda, to pre-register and pay online, and the December 2011 Meeting Minutes, go to <a href="http://cvp.cce.cornell.edu/event.php?id=51">http://cvp.cce.cornell.edu/event.php?id=51</a>. If you plan to attend the Dec. 14 meeting contact Carol MacNeil to request 2012 Dry Bean Research Reports and 2013 Dry Bean Research Proposals to review before the meeting. Sponsor opportunities are still available!</td>
</tr>
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</table>
## Upcoming Meetings...continued

### Northeast Beginning Farmers Online Courses
5 – 7 week courses for growers in their first 10 years. Cost is $200 each. Go to: [http://nebeginningfarmers.org/online-courses/](http://nebeginningfarmers.org/online-courses/)

**January**
- **BF 104**: Financial Records – Setting up Systems to Track Your Profitability
- **BF 121**: Veggie Farming – From Season-Long Care to Market
- **BF 203**: Holistic Financial Planning – Building Profit into the Picture

**March**
- **BF 103**: Taking Care of Business – Understanding the Business, Regulatory, and Tax Implications of Your Farm
- **BF 105**: Machinery and Equipment – Evaluating What’s Right for Your Operation

### Cornell Agribusiness Economic Outlook Conference
- **Tuesday, December 18**
  - **A.M.** - Agricultural Economic and Political Environment after the Election - Panel
  - **P.M.** - Sessions on vegetables/fruit, grape/ornamental, dairy, and grain
- Questions: Carol Thomson at cmt8@cornell.edu or (607) 255-5464

### National No-Tillage Conference
- **January 9 - 12, 2013**
  - **Hyatt Regency Indianapolis**
  - **Indianapolis, IN 46204**
  - Presentations by experienced growers, educators and researchers - featuring cover crops and reduced tillage. Roundtables lead by growers. Donn Branton, LeRoy, will outline how he determines what crops to no-till and which to strip-till or zone till.

### NYS Ag Society 181st Forum - Perception is Reality: Understanding How Consumers Perceive Agriculture
- **Thursday, January 10, 2013**
  - **8:30 am - 8:30 pm**
  - **Holiday Inn, 441 Electronics Pkwy, Syracuse/Liverpool**
  - This year’s Forum will consider consumer views and how farms can help promote agriculture to the public. Keynote speaker: Larry Kaagan, a polling, trend-analysis and strategy-consulting firm for agriculture and food industries. NYS Ag Commissioner, Darrel Aubertine, will present the State of the State’s Agriculture Address. **Discount for pre-registrations before December 21.** Details or pre-register at: [www.nysagsociety.org](http://www.nysagsociety.org) Co-sponsored by the NYS Dept. of Ag and Markets

### Conservation Easements for Farms and Rural Land
- **Thursday, January 24, 2013**
  - **7:00 - 8:30 pm**
  - **CCE Ontario County, 480 N Main St, Canandaigua 14424**
  - Farmers and other private landowners have the right to restrict future building or development on their property with a conservation easement. Conservation easements are created through a transfer of certain property rights from a landowner to a qualified organization or government body. The workshop will cover legal considerations with conservation easements, pitfalls of this approach to land preservation, the role of estate planning, tax implications, and where to obtain additional information.
  - $15 per family. Pre-registration is required by calling Nancy Anderson at 585-394-3977 x427 or email your full contact information to nea8@cornell.edu.
### Empire State Producers Expo (formerly the Empire State Fruit & Vegetable Expo) and Becker Forum

**Empire State Producers Expo (formerly the Empire State Fruit & Vegetable Expo) and Becker Forum**

January 21 - 24, 2013

The OnCenter, Syracuse, and Doubletree Hotel - Thruway

The Becker Forum, January 21, at the Doubletree Hotel - Thruway this year, will focus on Agricultural Labor. “H2A, E-verify, Obama Care, labor shortage, labor is the greatest challenge to today’s farmer. At the Becker Forum we will bring together industry and government to work towards resolutions to our many labor challenges,” said Jeanette Marvin, NYSVGA Director.

See the November Veg Edge and articles in this issue regarding Expo educational sessions January 22-24. For more information, the complete agenda, or to pre-register and pay online go to: [http://www.nysvga.org/expo/info](http://www.nysvga.org/expo/info). The printed program will be mailed in early December to CCE vegetable and fruit program enrollees, and to members of cooperating grower organizations.

The official hotels for the Empire State Producers Expo, with info on making reservations:

- The Genesee Grande, downtown (315-476-4212; mention “Expo” for a discount)
- The Crowne Plaza, downtown (315-479-7000)
- The Doubletree Hotel, Thruway (315-432-0200, through Dec. 28). The free shuttle bus to the Expo will run January 22 – 24, from 8:00 – 11:00 am and from 3:00 – 6:00 pm.

### 2013 NOFA-NY Organic Farming & Gardening Conference – Resilience

**2013 NOFA-NY Organic Farming & Gardening Conference – Resilience**

January 25 - 27, 2013

Saratoga Hilton & City Center
Saratoga Springs, NY

The Northeast Organic Farming Association of New York’s 31st annual three day winter conference hosts workshops on all aspects of farming and gardening—from vegetable production for advanced and beginning farmers to livestock, field crops, fruit, and more.

See events, fees, and registration (online, email or mail) by checking out: [https://www.nofany.org/events/winter-conference](https://www.nofany.org/events/winter-conference) You can either download the complete (14 MB) conference brochure, or go to online registration and click on View Event Details at the bottom.

To register, contact Charlene Burke, Registration Coordinator (585) 271-1979 ext. 515 or register@nofany.org. For general info (585) 271-1979.

### Drip Irrigation: Systems, Techniques, and Tips for Small Farms

**Drip Irrigation: Systems, Techniques, and Tips for Small Farms**

Tuesday, February 12
8:30 am - 3:00 pm

CCE Ontario County, 480 N Main St, Canandaigua 14424

After a hot, dry season, vegetable and fruit growers are realizing climate change might change their needs for supplemental water to ensure profitability. Drip irrigation is the most efficient use of water for maximum benefit for crop health, but only if the system is set up right to start. Cornell Cooperative Extension of Ontario County, in cooperation with the Cornell Vegetable Program, is offering this in-depth introduction to drip irrigation systems, generally for small farm applications. Penn State University irrigation specialist Bill Lamont will present tips and strategies for planning and designing a suitable irrigation system, plus explain issues related to soil fertility and maintenance. This workshop will also cover water sources, food safety considerations, and water needs of various vegetable and fruit crops.

The registration fee for workshop is $40.00 per person (if paid before January 31) and includes lunch, handouts, the complete program, and answers from experts. More information is available from Cornell Cooperative Extension of Ontario County at (585) 394-3977 x427 or e-mail Nancy Anderson with your questions: nea8@cornell.edu.
New Developments for Managing Onion Maggot

Christy Hoepting, Cornell Vegetable Program, and Brian Nault, Cornell

This year onion growers had two new seed treatment options available to them for control of onion maggot. These new products included Farmore FI500 from Syngenta and Sepresto from Bayer CropScience. Unlike Farmore FI500 that can be applied to any onion variety Sepresto is available exclusively on Nunhem’s onion varieties. Both insecticide seed treatments are only available in packages that also include fungicides for control of soil borne pathogens. Altogether, NY onion growers have FIVE insecticides (counting diazinon) representing FOUR chemical classes that are labeled for onion maggot control (Table 1). Of these, three are seed treatments; decisions for which one to use must be made when seed orders are placed. Following are the latest developments regarding the use of these new seed treatments.

Table 1. Insecticide roster for onion maggot control in onion in New York, 2012 and beyond.

<table>
<thead>
<tr>
<th>Trade Name</th>
<th>Company</th>
<th>Active Ingredient for OM</th>
<th>Chemical Class (IRAC group)</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>FarMore® FI500</td>
<td>Syngenta</td>
<td>thiamethoxam + spinosad</td>
<td>Neonicotinoid (4) + Spinosyn (5)</td>
<td>Seed treatment</td>
</tr>
<tr>
<td>Sepresto®</td>
<td>Bayer Crop-Science</td>
<td>clothianidin + imidaclopid</td>
<td>Neonicotinoid (4) + Neonicotinoid (4)</td>
<td>Seed treatment</td>
</tr>
<tr>
<td>Trigard®</td>
<td>Syngenta</td>
<td>cyromazine</td>
<td>Triazine (17)</td>
<td>Seed treatment</td>
</tr>
<tr>
<td>Lorsban® Advanced and OLF¹</td>
<td>Dow AgroSciences (Lorsban), other companies for OLF</td>
<td>chlorpyrifos</td>
<td>Organophosphate (1)</td>
<td>At planting in-furrow, Post-planting banded spray over row</td>
</tr>
<tr>
<td>Diazinon® AG500 Diazinon® 50WP and OLF¹</td>
<td>Makhteshim</td>
<td>diazinon</td>
<td>Organophosphate (1)</td>
<td>Pre-plant broadcast &amp; incorporate</td>
</tr>
</tbody>
</table>

¹ OLF: other labeled formulation such as Whirlwind for chlorpyrifos.
² IRAC: Insecticide resistance action committee

New Seed Treatments on the Scene

FarMore® FI500: Syngenta’s FarMore Technology has been around for a few years now. FarMore F300 consists of 3 fungicides including mfenoxam, fludioxonil and azoxystrobin that make up a seed treatment package for control of soil-borne pathogens and is labeled on several crops. FarMore FI400 is FarMore F300 plus the insecticide thiamethoxam (same active as in Cruiser, Platinum and Actara), and is labeled on cucurbits, leafy brassicas and carrots, predominantly for control of beetles and aphids. FarMore FI500 is essentially FarMore FI400 with the addition of spinosad for control of onion maggot and seedcorn maggot and it is only labeled on onions, and on all varieties. Spinosad and thiamethoxam represent two completely different chemical classes than Lorsban and Trigard for managing onion maggot (Table 1). Several years of Cornell Entomology studies have shown that thiamethoxam is weak against onion maggot, and that spinosad in the FarMore FI500 package is the active ingredient that is killing the maggots.

Sepresto® is a combination of two neonicotinoids with a 3:1 ratio of clothianidin (same active as Poncho) and imidaclopid (same active as Gaucho and Admire), which are both in the same chemical class as the thiamethoxam component in FarMore FI500. Clothianidin also controls seedcorn maggots. Sepresto is available exclusively on Nunhem’s onion varieties such as Hendrix and Pulsar, and only as part of a seed treatment package, “CAPS”. The “C” is for Coronet (a.i. pyraclostrobin + bosalid), “A” is for Allegiance (a.i. metalaxyl), “P” is for Pro Gro (a.i. thiram + carbothiin) and “S” is for Sepresto.

Resistance Management is Critical for Longevity of New Seed Treatments

Onion maggot is notorious for developing resistance to insecticides. Onion maggot first developed resistance to organochlorines, then to carbamates and organophosphates, including Lorsban and probably also to Trigard (resistance never confirmed, but efficacy noticeably declined in many fields). Onion maggot can develop resistance to an insecticide within 4-5 years of continuous exposure. Because many onion crops are grown in the same field or adjacent field year after year, local populations of onion maggot get exposed to the same insecticide year after year. Once resistance to a chemical class has developed in an onion maggot population, the population may become controllable again after eliminating exposure for a few years. However, resistance and difficulty in controlling the infestation will likely occur faster with resumed continuous exposure.

No new insecticides in the pipeline.

Because onion is a minor use crop and onion maggot is mostly a problem only in New York, Michigan and Wisconsin within the United States, there is not much interest from chemical companies to pursue the registration of insecticides for onion maggot control. To our knowledge, there is no other insecticide in the pipeline that will control onion maggot. Consequently, it is essential to preserve the usefulness of Sepresto and FarMore FI500. The best way to ensure this happens is to follow a resistance management strategy.
Rotate chemical classes in each field – Trigard still a major player. First, growers should rotate among chemical classes in each field every year. Ideally, FarMore FI500 and Sepresto/CAPS should not be rotated with each other. FarMore FI500 contains a neonicotinoid which, although it does not have activity against onion maggot directly, is in the same chemical class as the active ingredient in Sepresto, thus exposure to it will contribute to the development of resistance to this chemical class. Therefore, our suggested rotation strategy is to use FarMore FI500 or Sepresto/CAPS in year 1, and Trigard with or without Lorsban in year 2.

What makes this strategy tricky is that Sepresto/CAPS is available only on Nunhem’s varieties. For 2012, we recommended growers experiment with Sepresto/CAPS on their Nunhem’s varieties and FarMore FI500 on all other varieties. Ideally, fields planted with either Sepresto/CAPS- or FarMore FI500–treated onion seeds in 2012 should be planted with any variety treated with Trigard with or without a chlorpyrifos (e.g., Lorsban) drench in 2013. Note that although only Nunhem’s varieties can be treated with Sepresto/CAPS, they don’t have to be and can be treated with FarMore FI500 or Trigard. Similarly, fields that were planted with Trigard-treated onion seed in 2012 should be planted with either a Nunhem’s variety with Sepresto/CAPS, or another variety with FarMore FI500 in 2013. If this is not feasible, it is still better to rotate away from Sepresto/CAPS to FarMore FI500, or from FarMore FI500 to Sepresto/CAPS than it would be to have the same seed treatment in the field in consecutive years.

For large onion growing regions like Elba and Orange County where several growers’ onion fields are intermingled, it would be ideal if all growers followed the same rotation strategy. The advantage of this strategy would be that the onion maggot population in the region would not be exposed to all chemical classes every year. For example, use FarMore FI500 and Sepresto/CAPS in year 1 and Trigard with or without chlorpyrifos (e.g., Lorsban) in year 2. Implementing such a regional management strategy would require a lot of grower cooperation. If this is simply not possible, rotating chemical classes on individual fields, even if out of synchrony with the neighboring field, hopefully will still go a long way towards preserving the useful life of our new (and old) chemistries, because onion maggot flies do not move great distances, and some level of chemical rotation should be beneficial.

Is Chlorpyrifos (Lorsban) also needed? For many years, the standard practice for controlling maggots in onion has been to use Lorsban or other generic version of chlorpyrifos as a drench treatment in the furrow in addition to using Trigard as a seed treatment. The reason for this is two-fold: 1) Trigard is known to be weak against seedcorn maggot, which although a sporadic pest of onions, can cause significant stand loss when it occurs, whereas Lorsban controls seedcorn maggot; 2) Reduced efficacy of Trigard has been demonstrated in several Cornell Entomology research trials, and in these trials, the combination of Trigard plus Lorsban consistently provided better control than when Trigard or Lorsban were used alone. This was demonstrated again in 2012 Cornell trials; Trigard + Lorsban treatments provided an additional 15 to 38% control than when Trigard was used alone (Table 2).

Naturally, growers wanted to know whether Lorsban was also needed when using the new seed treatments, FarMore FI500 and Sepresto/CAPS. Both of the new treatments are known to control seed maggots and the active ingredients have performed very well in previous Cornell trials, but the active ingredients had not been tested in their commercially available seed treatment packages. Ideally, the new seed treatments would be effective on their own and not need supplementation with Lorsban. In this scenario, Lorsban would not need to be used and perhaps could be used effectively in the future. In 2012, several trials were conducted to compare the new seed treatments with and without Lorsban.

FI500 can be used alone. In all 4 trials, there were no significant differences between FarMore FI500 with and without Lorsban. Numerically, control of onion maggot was improved by 12% in only one of the locations where maggot pressure was very high (88% in the untreated) (Table 2). Therefore, our recommendation is that FarMore FI500 can be used without Lorsban, except in areas where pressure is known to be very high. Additionally, there may be instances where Lorsban could be included with FarMore FI500 to provide additional protection against onion smut – see next section.

The jury is still out on Sepresto – in the meantime, use Lorsban. Unfortunately, there is limited reliable data on whether Lorsban should be included with the Sepresto/CAPS package. The only reliable data (Elba 2) indicates that Lorsban is not needed with Sepresto/CAPS. However, onion maggot pressure was moderate at the Elba 2 site and more information is needed at higher pressure levels. In the meantime, we remain conservative in our recommendation and suggest planting strips of Sepresto with and without Lorsban to get a sense for the need for Lorsban.

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Onion maggots.

Photo: C. Hoepting, Cornell Vegetable Program

continued on page 12
Make sure you have onion smut protection! – add Pro Gro to FarMore FI500 and Trigard.

Direct-seeded onions cannot be grown in muck soils where onions have been grown for decades without fungicide treatments to control onion smut because this pathogen is very persistent in muck soils. Treatments to combat this disease include Pro Gro seed treatment plus mancozeb in-furrow. Fortunately, Nunhem’s Sepresto seed treatment package (CAPS) includes Pro Gro for control of onion smut. Despite containing three fungicides, FarMore FI500 does not provide control of onion smut, so Pro Gro still needs to be added to this seed treatment package, as it would to Trigard. Application of mancozeb in-furrow is still recommended in addition to both of these seed treatments for adequate onion smut control.

Interestingly, one of the insecticides for onion maggot control, chlorpyrifos (e.g., Lorsban), has been shown to provide 40 to 73% control of onion smut (Hoepting 2001, M.S. Thesis). So, when growers switched from Lorsban to Trigard, the observed increased

### Table 2. Evaluation of seed treatments with and without Lorsban for control of onion maggot (OM), Cornell field trials, 2012.

<table>
<thead>
<tr>
<th>Location</th>
<th>Sodus</th>
<th>Oswego</th>
<th>Elba 1</th>
<th>Elba 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>% OM damage</td>
<td>% control</td>
<td>% OM damage</td>
<td>% control</td>
</tr>
<tr>
<td>Untreated</td>
<td>87.6 a³</td>
<td>--</td>
<td>41.5 a</td>
<td>--</td>
</tr>
<tr>
<td>Lorsban</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>FarMore FI500</td>
<td>20.5 de</td>
<td>77%</td>
<td>7.4 c</td>
<td>82%</td>
</tr>
<tr>
<td>FarMore FI500 + Lorsban</td>
<td>9.7 e</td>
<td>89% (+12%)</td>
<td>7.2 c</td>
<td>83% (+1%)</td>
</tr>
<tr>
<td>Trigard</td>
<td>59.4 bc</td>
<td>32%</td>
<td>18.5 abc</td>
<td>55%</td>
</tr>
<tr>
<td>Trigard + Lorsban</td>
<td>26.5 cde</td>
<td>70% (+38%)</td>
<td>7.5 bc</td>
<td>82% (+27%)</td>
</tr>
<tr>
<td>Sepresto/CAPS</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Sepresto/CAPS + Lorsban</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

¹ Trial conducted by Brian Nault.
² Trial conducted by Christy Hoepting.
³ Means in a column followed by the same letter are not significantly different (p>0.05).

---

### The Onion Maggot Plan

- Trigard (+ Lorsban in-furrow if you have seed maggots) on majority of acreage
- Experiment with Sepresto on Nunhem’s varieties
- Experiment with Farmore FI500
- Trial a portion without the addition of Lorsban in-furrow

<table>
<thead>
<tr>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trigard + Lorsban on all varieties</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sepresto/CAPS on Nunhem’s varieties (verdict will be in on need for Lorsban)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farmore FI500 on all other varieties</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

REMEMBER: Add Pro Gro for onion smut to Trigard and Farmore FI500 seed treatments

---

Make sure you have onion smut protection! – add Pro Gro to FarMore FI500 and Trigard.
level of onion smut was a consequence of taking away the control that they were getting with Lorsban. In 2012 in Elba, NY, no significant differences in smut occurred between the treatments with and without Lorsban, although numerically, the addition of Lorsban provided better control of onion smut by 7 to 13% in 2 out of 3 comparisons (Figure 1). Although, we would like to continue to study this phenomenon, our preliminary data in New York suggests that growers will not experience a surge in onion smut if they do not use Lorsban in the furrow at planting. It may be worthwhile to include Lorsban ONLY in fields where onion smut pressure is known to be very high. 

---

**Figure 1.** Evaluation of Lorsban for control of onion smut, Elba, 2012. Each treatment contains industry standard for control of onion smut, Pro Gro + mancozeb, plus insecticide for onion maggot control, and then is compared with and without Lorsban. (Hoepting, 2012).

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**Basics of Organic Seed Production - Free Online Course, Resources**

*Cornell Small Farms Program, <http://smallfarms.cornell.edu>*

The Organic Seed Alliance, with a grant from SARE, has provided a multitude of resources on seed production. Contributors to the course include representatives from High Mowing Seeds, Seeds of Change, Siskiyou Seeds. Topics include choosing the right seed for your climate, onion seed production, beet and chard seed production, brassica seed production, and more! To take the free course, visit: [http://campus.extension.org/course/view.php?id=377](http://campus.extension.org/course/view.php?id=377)

---

**Bringing Organic Plant Breeding to NY**

*Kate Frazer, Cornell*

When Michael Mazourek was a child, he dreamed of becoming a farmer, a chef or an engineer. As the Calvin Noyes Keeney Assistant Professor of Plant Breeding, Mazourek spends some days planting crops for trials at Cornell Ag Experiment Station research farms, others collaborating with chef Dan Barber on unusual breeds like the honeynut squash, and still others designing organic varieties to benefit New York state growers. It was this work that earned Mazourek recognition by the Organic Seed Alliance (OSA). OSA is part of the Northern Organic Vegetable Improvement Collaborative, researchers from four universities, OSA, the U.S. Department of Agriculture (USDA), and organic farmers.

"Here in New York, there's no 'big organic' like in California so it's all the more important to get farmers involved in breeding," Mazourek said. "My goal is to connect people with seeds that will work for them. In central New York, that means things like broccoli that doesn't bolt, peppers that resist Phytophthora and butternut squash you can store in the winter." Mazourek has been able to access grant opportunities through the USDA and its Organic Agriculture Research and Extension Initiative to help public plant cultivar developers meet these and other grower needs. Some projects - like helping the town of Irondequoit, N.Y., rediscover a melon breed lost to disease - involve combing through the dusty files of his predecessors. Others demand high-tech approaches like DNA sequencing and barcode readers in the field. He sees this work as important not only for farmers but for the region as a whole.

"Sustainable and organic systems contribute to the economy and well-being of our state and region. By definition [local food] has to be produced in our communities, and production in our communities means profits tend to stay in our communities," Mazourek said.

Making the Most of Collaborative Marketing for Your Farm

Jim Ochterski, CCE Ontario County

It seemed like such a simple idea: several small farm owners in the community realized they would rather work together than against each other when it comes to sales. One of the farmers suggested a group effort to merge their marketing efforts into one common identity. Within a few months, they had a group name, a logo, and they generally agreed who was going to grow what. As harvest season approached, there was trouble. The buyer complained that the products from each farm were inconsistent and they did not know who they were supposed to be talking to. Deliveries were delayed when one of the farms got tied up serving another market. Worse, another farm had been lagging in their food safety certification and the whole group was nervous this problem could cost a lot of money. Collaboration seemed like a good idea at the time, but became a major source of stress and financial pressure.

Collaboration is on the minds of many farmers in the Northeast US. As local food evolves beyond farm markets to serve larger clients like schools, restaurants, and distributors, it becomes very challenging for a single individual farm to keep up. Collective projects like food hubs, aggregation centers, or farm product pools show a lot of promise, but each farm is inconsistent and they do not know who they were supposed to be talking to. Deliveries were delayed when one of the farms got tied up serving another market. Worse, another farm had been lagging in their food safety certification and the whole group was nervous this problem could cost a lot of money. Collaboration seemed like a good idea at the time, but became a major source of stress and financial pressure.

The 2012 New York Small Farm Summit mobilized the voices of many farmers, and determined that enhancing food distribution strategies to serve local and regional markets is the top priority for small farms. In response, Cornell Cooperative Extension hosted a one-day collaborative marketing seminar and subsequently produced a new bulletin, Collaborative Marketing for Small Farms: Selling and Working Together for Profitability, which is available as a free download at the Cornell Small Farms website.

There are a lot of good reasons to market collaboratively with other farms. The group effort can reduce individual farm marketing expenses, increase the capacity to serve a new buyer and reduce their risk, maintain product availability by dividing production across several farms, or to maximize a marketing advantage that several farms share.

One of the first things many producers presume about market collaboration is that they automatically need to organize a cooperative; this is not true. There are several collaboration approaches available to farms. Collaborative marketing agreements range from very simple contracts to the formation of new corporations. Something as modest as a consignment agreement allows one farm to sell through another’s market channels. More complicated options take longer to form and involve many legal, business, liability, and taxation considerations. Many small farms will benefit from starting with basic agreements (such as a joint venture or consignment), maintaining independence as an individual farm, or to maximize a marketing advantage that several farms share.

The group effort, described at the beginning of this article, experienced trouble because they were relying on a general sentiment to work as one, rather than a written agreement. Informal agreements, especially oral agreements, carry a lot more risk than meets the eye. What each person recalls from an oral agreement may be different because there is no record of what exactly was agreed to. An oral agreement is also risky for your farm because the oral agreement could become legally binding when you would rather it didn’t. If two or more farms collaborate without a written agreement, the law can imply that a general partnership is formed. This can unintentionally create legal problems and even liability for each other’s debts.

Each farm involved in a marketing collaborative is still obliged to look out for its own interests. A written agreement is the best way to make sure good intentions turn into good business.

Attorneys are usually necessary to develop collaborative marketing agreements. Even though one of the key elements of collaborative marketing among small farms is simplicity, if an agreement is too simple, the participating farms can face big disagreements and supply problems that can make everyone look bad. There are tough and unfamiliar issues that need to be addressed by a qualified attorney in most farm collaborative arrangements:

- Determining the legal identity and product liability of the collaborative in case of problems
- How and when to allow other farms to enter into the collaboration
- Which participants are authorized to sign contracts on behalf of the whole group
- How to enforce oral agreements if there is a dispute about who said what

Fortunately, a small group of farms can combine their marketing efforts and experience the best aspects of what collaboration can bring with communication, enhanced market opportunities, an improved bottom line, and achieving a shared goal with fellow farmers.

For more details, download and read Cornell Cooperative Extension new bulletin, Collaborative Marketing for Small Farms: Selling and Working Together for Profitability. The publication is available online at www.smallfarms.cornell.edu/marketing.

Jim Ochterski is an Agriculture Economic Development Specialist at Cornell Cooperative Extension of Ontario County. He can be contacted by jao14@cornell.edu or 595-394-3977 x402.

"Smart Marketing” is a marketing newsletter for extension publication in local newsletters and for placement in local media. It reviews elements critical to successful marketing in the food and agricultural industry.
2012 NYS Certified Seed Potato Crop Directory Now Available

Carol MacNeil, Cornell Vegetable Program

The 2012 NYS Certified Seed Potato Crop Directory provides a wealth of information on NYS potato seed certification, as well as on the 67 varieties grown for certification in 2012. The varieties include standards for processing and tablestock, newer varieties, and specialty/heirloom varieties. Brief summaries of the varieties’ maturity, appearance, yield potential, and major disease susceptibility are included. Contact info for the growers with seed supplies of each variety is included. There is also a listing of the inspectors from the NYS Dept. of Ag & Markets in Albany, Rochester and Syracuse. To see the directory online http://rvpadmin.cce.cornell.edu/pdf/submission/pdf103_pdf.pdf or contact Alan Westra, NY Seed Improvement Cooperative manager at: aaw4@cornell.edu or 607-255-9869.

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$140 for certification which includes the training manuals and all 4 classes. Does not include the $100.00 exam fee. Recertification is $75.00 for all 4 classes or $20.00 per class.

For more information and the registration form, go to [http://www.cceontario.org/temp2.asp?id=pesticide-education](http://www.cceontario.org/temp2.asp?id=pesticide-education). Or, contact CCE Ontario County, 585-394-3977 x427 or x436 or email [nea8@cornell.edu](mailto:nea8@cornell.edu) or [rw43@cornell.edu](mailto:rw43@cornell.edu)

Food Facility Registration Due December 31st

*Carol MacNeil, Cornell Vegetable Program (info from FDA and USDA)*

Mandatory Food/Feed Facility Registration (free), under the 2002 Bio Terrorism Law, now applies to farms which pack/store/process any food (produce, etc.) from off the home farm. Previously, all farms were exempt. Deadline to register is December 31, 2012. Minimal info is required. For more info go to: What you need to know about registration of food facilities, at:


See pg 6 regarding “these facilities don’t have to register” for the definition of “farms.”

Electronic registration: [www.access.fda.gov](http://www.access.fda.gov)

Good Pesticide Stewardship

*E-County Agent, 11/12*

The National Association of County Agricultural Agents has partnered with Syngenta Crop Protection on the production of five Pesticide Stewardship brochures which are highly informative on safety. The topics include:

- **50 Ways to Treat Your Pesticides (properly)** (English or Spanish)
- **Pollinators and Pesticide Stewardship**
- **Dress for Success: Personal Protective Equipment** (English or Spanish)
- **Short version of Dress for Success: Personal Protective Equipment** (English or Spanish)
- **Value of Buffers**

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  207.890.1645
2011 Organic Production Survey

NY Field Office, National Ag Statistics Service

The U.S. 2011 Certified Organic Production Survey (COPS) includes all known farm operators who produce certified organic crops and/or livestock. The survey was conducted in all 50 States. The 2011 COPS was conducted by the United States Department of Agriculture’s (USDA) National Agricultural Statistics Service (NASS) in conjunction with USDA’s Risk Management Agency (RMA). A summary of findings follows.

The complete, 184 page, report can be found online at www.nass.usda.gov.

### Total Gross Value of Certified Organic Sales, Top 5 Vegetables, NY, 2011

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Number of Farms with Sales</th>
<th>Quantity Sold</th>
<th>Unit</th>
<th>Total Sales</th>
<th>Sales Percent Change 2011/2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Tomatoes</td>
<td>79</td>
<td>20,865</td>
<td>Cwt.</td>
<td>$2,378,846</td>
<td>+167</td>
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<tr>
<td>2 Cabbage</td>
<td>37</td>
<td>29,401</td>
<td>Cwt.</td>
<td>$1,223,727</td>
<td>+406</td>
</tr>
<tr>
<td>3 Squash</td>
<td>84</td>
<td>7,575</td>
<td>Cwt.</td>
<td>$899,575</td>
<td>+3</td>
</tr>
<tr>
<td>4 Dry Beans</td>
<td>9</td>
<td>5,795</td>
<td>Cwt.</td>
<td>$740,616</td>
<td>+199</td>
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<tr>
<td>5 Potatoes</td>
<td>65</td>
<td>19,268</td>
<td>Cwt.</td>
<td>$709,699</td>
<td>+82</td>
</tr>
</tbody>
</table>

Focus on Potato Webcast

Plant Management Network at:
www.plantmanagementnetwork.org

Potato plants can carry various diseases, and many of the most difficult ones to control are passed on through seed potato tubers. Therefore, seed potato certification is a vital step in the process to protect potato crops. The latest Focus on Potato webcast, titled and accessible at: “Seed Potato Certification”, Professor Robert Davidson at Colorado State University, helps users in the U.S. and Canada learn about the basics of seed potato certification. Dr. Davidson’s webcast covers:

- The basis for seed potato certification
- The current certification processes
- Diseases and conditions that are the focus of inspections
- How these problems are managed through the use of clean, high quality seed potatoes

This 22-minute presentation is open access through February 28, 2013. Other webcasts in the Focus on Potato resource can be viewed at www.plantmanagementnetwork.org/fop.

Focus on Potato is a publication of the Plant Management Network (www.plantmanagementnetwork.org), a nonprofit online publisher whose mission is to enhance the health, management, and production of agricultural and horticultural crops. PMN is jointly managed by the American Society of Agronomy, American Phytopathological Society, and Crop Science Society of America. For access to all of PMN’s resources sign up for free at: PMN Update newsletter.
Contact the Cornell Vegetable Program

Cornell Vegetable Program (CVP) Specialists

Robert Hadad
Extension Specialist
Food safety; Western region fresh market vegetables; marketing; organic
Phone: (716) 433-8839 x228
Cell: (585) 739-4065
Email: rgh26@cornell.edu

Julie Kikkert*
Extension Specialist
Processing crops: sweet corn, snap beans, peas, beets and carrots
Phone: (585) 394-3977 x404
Cell: (585) 313-8160
Email: jrk2@cornell.edu

Judson Reid
Extension Specialist
Greenhouse production; small farming operations; Eastern region fresh market vegetables
Phone: (315) 536-5123
Cell: (585) 313-8912
Email: jer11@cornell.edu

Christy Hoepting
Extension Specialist
Onions, cabbage, field research and pesticide training
Phone: (585) 798-4265 x38
Cell: (585) 721-6953
Email: cah59@cornell.edu

Carol MacNeil
Extension Specialist
Potatoes, dry beans and soil health; Editor of Veg Edge
Phone: (585) 394-3977 x406
Cell: (585) 313-8796
Email: crm6@cornell.edu

CVP Administration

Mark Giles*, Regional Ag Team Leader
Cornell University
Phone: (607) 255-6619
Email: fmg4@cornell.edu

Angela Parr, Administrative Assistant
Veg Edge, Enrollment, & Sponsorships
Phone: (585) 394-3977 x426
Email: aep63@cornell.edu

Steve Reiners*, Co-Team Leader
Cornell University
Phone: (315) 787-2311
Email: sr43@cornell.edu

* Member of the Cornell Vegetable Program Administrative Management Team

Cornell Cooperative Extension Offices of the CVP

Allegany County CCE
Belmont, NY
Phone: (585) 268-7644

Cattaraugus County CCE
Ellicottville, NY
Phone: (716) 699-2377

Erie County CCE
East Aurora, NY
Phone: (716) 652-5400

Genesee County CCE
Batavia, NY
Phone: (585) 343-3040

Monroe County CCE
Rochester, NY
Phone: (585) 461-1000

Niagara County CCE
Lockport, NY
Phone: (716) 433-8839

Onondaga County CCE
Syracuse, NY
Phone: (315) 424-9485

Ontario County CCE
Canandaigua, NY
Phone: (585) 394-3977

Orleans County CCE
Albion, NY
Phone: (585) 798-4265

Seneca County CCE
Waterloo, NY
Phone: (315) 539-9251

Wayne County CCE
Newark, NY
Phone: (315) 331-8415

Yates County CCE
Penn Yan, NY
Phone: (315) 536-5123

Visit our website at http://cvp.cce.cornell.edu

CVP Region Berry Program

Deborah Breth, Lake Ontario Fruit Program Team Leader
Monroe, Niagara, Onondaga, Orleans, Oswego & Wayne Co.
Phone: (585) 798-4265 x36
Email: dib1@cornell.edu
Website: http://lof.cce.cornell.edu

Cathy Heidenreich, Berry Extension Support Specialist
Allegany/Cattaraugus, Erie, Genesee, Ontario, Seneca & Yates Co.
Phone: (315) 787-2367
Email: mcm4@cornell.edu
Website: www.fruit.cornell.edu/berry.html
Contact the Capital District Vegetable & Small Fruit Program

Capital District Vegetable and Small Fruit Program (CDVSFP) Specialists

Chuck Bornt, Team Leader
Extension Specialist
Vine crops, sweet corn, potatoes, tomatoes and reduced tillage
Office: (518) 272-4210 ext 125
Cell: (518) 859-6213
Email: cdvb13@cornell.edu
Address: 61 State Street
Troy, NY 12180

Laura McDermott, Extension Specialist
Small fruits, leafy greens, labor, high tunnels, and food safety
Office: (518) 746-2562
Cell: (518) 791-5038
Email: lgm4@cornell.edu
Address: 415 Lower Main Street
Hudson Falls, NY 12839

Crystal Stewart, Extension Specialist
Small and beginning farms, organic, root crops, brassicas, and garlic
Cell: (518) 775-0018
Email: cls263@cornell.edu
Address: 141 Fonclair Terrace
Johnstown, NY 12095

Abigail Foster, Field Technician
Phone:
Email: aef225@cornell.edu

CDVSFP Administration

Mark Giles, Regional Ag Team Leader
Cornell University
Phone: (607) 255-6619
Email: fmg4@cornell.edu

Steve Reiners, Co-Team Leader
Cornell University
Phone: (315) 787-2311
Email: sr43@cornell.edu

Cornell Cooperative Extension Offices of the CDVSFP

Albany County CCE
William Rice Jr. Extension Center
24 Martin Road
Voorheesville, NY
Phone: (518) 765-3500

Columbia County CCE
Education Center, 479 Rte. 66
Hudson, NY 12534
Phone: (518) 828-3346

Fulton & Montgomery Counties CCE
50 E. Main Street
Canajoharie, NY 13317
Phone: (518) 673-5525

Greene County CCE
Agroforestry Resource Center
6055 Route 23
Acra, NY 12405
Phone: (518) 622-9820

Schenectady County CCE
Schaffer Heights
107 Nott Terrace, Suite 301
Schenectady, NY 12308
Phone: (518) 372-1622

Schoharie County CCE
Extension Center
173 S. Grand Street
Cobleskill, NY 12043
Phone: (518) 234-4303

Warren County CCE
377 Schroon River Road
Warrensburg, NY 12885
Phone: (518) 623-3291

Washington County CCE
415 Lower Main Street
Hudson Falls, NY 12839
Phone: (518) 746-2560

Advisory Members

Albany: Tim Albright and Tim Stanton
Columbia: John Altobelli, Bryan Samascott, Jody Bolluyt (organic)
Fulton: Eric and Stephanie Grey
Greene: Pete Kavakos, Jr. and Jim Story
Montgomery: Jim Hoffman and Ken Fuehstorfer (organic)
Rensselaer: Larry Eckhardt and David Mesick
Schenectady: Al Lansing and Keith Buhrmaster
Saratoga: Cyndi Pastore and Craig DeVoe
Schoharie: Bob and Linda Cross, and Jake Hooper
Warren: Kim Feeney
Washington: George Armstrong and Rich Moses

Industry Representatives: Jay Matthews and Paul Peckham

Visit our website at http://cdvsfp.cce.cornell.edu

If you have questions or comments about this publication or the Capital District Program in general, please contact your county’s grower advisory member or the Agricultural Program leader of your local Cornell Cooperative Extension office.
Richard Ball of Schoharie Valley Farms in Schoharie, NY believes that success in farming often comes from a keen sense of community engagement. One success factor Richard noted at the 2012 Becker Forum is how you manage your connections in the community and among your customers:

“Let’s face it. There are many appetites out there, but few people who know what we do. You have many points of contact in the community and each should say something about your farm.”

This essential message of engaging the community is a principle of sustainability: giving something back to the people around you. You might demonstrate this through community education, improved nutrition, civic leadership, or environmental protection. Such actions say something very positive and profound about the role of farms in a community, so farming as an industry can feel less under siege, and more admired than ever.

For more information about Schoharie Valley Farms, see their website at www.schoharievalleyfarms.com

Success Factors in Farming provides tips and advice from the vast collective knowledge found among farmers in our area. These thought-provoking commentaries have been collected by Extension agent Jim Ochterski, and are presented exclusively in the Cornell Vegetable Programs award-winning newsletter, Veg Edge to offer real-life insights about sustainability and long-term success in agriculture.